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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,603	09/10/2003	Hwa-Sung Shin	1349.1258	1917

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EXAMINER

MORRISON, THOMAS A

ART UNIT

PAPER NUMBER

3653

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/658,603	<b>Applicant(s)</b> SHIN ET AL.	
	<b>Examiner</b> Thomas A. Morrison	<b>Art Unit</b> 3653	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16-18,24 and 26-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-18,24 and 26-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/12/06 &amp; 3/7/06</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/17/2006 has been entered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 16-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 recites "a leading end of a topmost sheet" in line 9. After this, claim 16 recites "a leading end of the topmost sheet of paper" in line 13. It is unclear if the recited "a leading end" in line 13 is the same or different from the previously recited "a leading end" in line 9 of claim 16.

Claim 16 recites the limitation "the first and second finger devices" in line 14. There is insufficient antecedent basis for this limitation in the claim. One possible solution to correct this problem is to change "second finger device **portion**" in line 12 of claim 16 to -- second finger device --.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 24 and 26-31 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,772,007 (Kashimura).

Regarding claim 24, Figs. 13-15 show a paper feeding apparatus of an image forming apparatus having a frame (including 202), a knock-up plate (207) movably mounted on the frame (including 202), and a pickup roller (205) picking up a sheet of paper disposed on the knock-up plate (207), the paper feeding apparatus having

a first finger device (lower 224 in Fig. 15) movably disposed on a first portion of the knock-up plate (207) to contact a first end (i.e., one of the 4 sides of the stack) of the paper; and

a second finger device (upper 224 in Fig. 15) movably disposed on a second portion of the knock-up plate (207) to contact a second end (i.e., another one of the 4 sides of the stack) of the paper,

wherein the first and second finger devices (lower 244 and upper 224 in Fig. 15) move independently from each other.

Regarding claim 26, Figs. 13-15 show that the knock-up plate (207) has first and second sides disposed opposite to each other with respect to a paper feeding direction.

Regarding claim 27, Figs. 13-15 show a knock-up plate raising/lowering portion (211) moving with respect to the frame (including 202) to raise and lower the knock-up plate (207) with respect to the pickup roller (205).

Regarding claim 28, Figs. 13-15 show that the first finger device (lower 224 in Fig. 15) moves according to a movement of the knock-up plate raising/lowering portion (211).

Regarding claim 29, Figs. 13-15 show a paper guide (222) slidably disposed on the knock-up plate (207) to move toward and away from the knock-up plate raising/lowering portion (211) according to a size of the paper disposed between the paper guide (222) and a side of the knock-up plate (207).

Regarding claim 30, Figs. 13-15 show that the knock-up plate raising/lowering portion (211) moves in a first direction, and the paper guide (222) moves in a second direction perpendicular to the first direction.

Regarding claim 31, Figs. 13-15 show that the first finger device (lower 224 in Fig. 15) moves in the first direction, and the second finger device (upper 224 in Fig. 15) moves in the first and second directions.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 16-18, 24 and 26-31, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art FIG. 1 of the instant application in view of U.S. Patent No. 4,786,042 (Stemmle).

Regarding independent claim 16, applicant's admitted prior art FIG. 1 shows a paper feeding apparatus of an image forming apparatus having a frame (10), a knock-up plate (11) movably mounted on the frame (10), and a pickup roller (22) for picking up a sheet of paper arranged in a stack of sheets of paper disposed on the knock-up plate (11), including a paper setting unit (30),

wherein the paper setting unit (30) has

a knock-up plate raising/lowering portion (12) for raising and lowering the knock-up plate (11) with respect to the pickup roller (22),

a first finger device (14) disposed on the knock-up plate raising/lowering portion (12) to contact a first corner of a leading end of the paper (see also numbered paragraph [0006] of the Description of the Related Art section of the instant application),

a paper guide (25) slidably disposed on the knock-up plate (11) to guide the sheet of paper in accordance with a paper size. However, applicant's admitted prior art FIG. 1 does not specifically show a second finger device portion, as claimed.

Regarding independent claim 24, applicant's admitted prior art FIG. 1 shows a paper feeding apparatus of an image forming apparatus having a frame (10), a knock-up plate (11) movably mounted on the frame (10), and a pickup roller (22) picking up a sheet of paper disposed on the knock-up plate (11), the paper feeding apparatus having

a first finger device (14) movably disposed on a first portion of the knock-up plate (11) to contact a first end (i.e., leading end) of the paper. However, applicant's admitted prior art FIG. 1 does not specifically show a second finger device, as claimed.

With regard to independent claims 16 and 24, the Stemmler patent discloses that it is well known to provide a paper handling device with two corner snubbers (i.e., two finger devices 40 and 40) that are arranged such that a first one of the finger devices (40) is provided on one corner of a leading edge of a stack of sheets and the second finger device (40) is provided on a movable guide (28), so as to contact another corner of the leading edge of the stack of sheets. See, e.g., Figs. 1, 3 and 4 of the Stemmler patent. Stemmler explains that the corner snubbers (first and second finger devices) are arranged to ride on the corners of the stack of sheets to inhibit forward motion of the corners of the sheets when the sheet is fed in the forward position. See, e.g., column 6, line 62 to column 7, line 1. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the movable guide (25) of the apparatus

shown in applicant's admitted prior art FIG. 1 with a second corner snubber (i.e., a second finger device portion) so that forward motion of both corners of the leading end of the sheets is inhibited when the sheets are fed in the forward position, as taught by the Stemmler patent. Providing the apparatus shown in applicant's admitted prior art FIG. 1 with a second corner snubber (second finger device portion), in a manner as taught by Stemmler, will result in the second finger device portion being movably disposed on the paper guide (25) of the apparatus shown in applicant's admitted prior art FIG. 1 to contact a second corner of a leading end of the topmost sheet of paper. Providing the second finger device portion on the guide (25) will also result in the second finger device portion being movably disposed on a second portion of the knock-up plate (11) of the apparatus shown in applicant's admitted prior art FIG. 1. In addition, providing the apparatus shown in applicant's admitted prior art FIG. 1 with a second corner snubber (second finger device portion), in a manner as taught by Stemmler, will result in the second finger device portion being movable independently from the first finger device (14). Thus, applicant's admitted prior art FIG. 1 in view of the Stemmler patent discloses all of the limitations of independent claims 16 and 24.

Regarding claim 17, providing the apparatus shown in applicant's admitted prior art FIG. 1 with a second corner snubber (second finger device portion), in a manner as taught by Stemmler, will result in the first finger device (14) being disposed opposite to the second finger device with respect to the sheet of paper.

Regarding claim 18, applicant's admitted prior art FIG. 1 shows that the frame (10) has a side on which the knock-up plate raising/lowering portion (12) is rotatably



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disposed, and the paper guide (25) moves toward or away from the side according to the size of the sheet of paper.

Regarding claim 26, applicant's admitted prior art FIG. 1 shows that the knock-up plate (11) has first and second sides disposed opposite to each other with respect to a paper feeding direction.

Regarding claim 27, applicant's admitted prior art FIG. 1 shows a knock-up plate raising/lowering portion (12) moving with respect to the frame (10) to raise and lower the knock-up plate (11) with respect to the pickup roller (22).

Regarding claim 28, applicant's admitted prior art FIG. 1 shows that the first finger device (14) moves according to a movement of the knock-up plate raising/lowering portion (12).

Regarding claim 29, applicant's admitted prior art FIG. 1 shows a paper guide (25) slidably disposed on the knock-up plate (11) to move toward and away from the knock-up plate raising/lowering portion (12) according to a size of the paper disposed between the paper guide (25) and a side of the knock-up plate (11).

Regarding claim 30, applicant's admitted prior art FIG. 1 shows that the knock-up plate raising/lowering portion (12) moves in a first direction, and the paper guide (25) moves in a second direction perpendicular to the first direction.

Regarding claim 31, applicant's admitted prior art FIG. 1 shows that the first finger device (14) moves in the first direction. Providing the second finger device on the

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guide (25) of the apparatus shown in applicant's admitted prior art FIG. 1, in a manner as taught by the Stemmler patent, will result in the second finger device pivoting up and down in the first direction, and also moving together with the guide (i.e., guide 25 in applicant's admitted prior art FIG. 1) in the second direction.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 16-18 have been considered but are moot in view of the new ground(s) of rejection.

Also, applicant's arguments filed 02/17/2006 have been fully considered but they are not persuasive. Applicant argues that amended claim 24 recites

"...wherein the first and second finger devices move independently from each other." In contrast to claims 16 and 24, Kashimura discloses a single separating pawl 224 cooperable with the paper supply rollers 205 to separate cut sheets formed on the fore end of each of the separating pawl members 221 and 223. An ear 225 engaged with the intermediate plate 207 is formed on the rear end portion of each of the separating pawl members 221 and 223 so that when the intermediate plate 207 is depressed, the separating pawls 224 and 224 are upwardly pivoted in response thereto. Since both separating pawl members 221 act in response to the ear 225, they do not act independently of each other.

In response, it is noted that the two separating pawls (i.e., first and second finger devices 224 and 224) on elements 223 and 221 are not connected together. Rather, elements 221 and 223 are pivotally attached to separate elements. Namely, element 223 is pivotally connected to element 222, while element 221 is pivotally connected to element 219. Since there is no interconnection between elements 221 and 223 and the movement of one of the elements (221 and 223) does not result in movement of the other one of the elements (221 and 223), it is the examiner's position that elements 221

and 223 move independently of each other. Thus, the first and second finger devices (224 and 224) on elements 221 and 223 also move independently of each other.

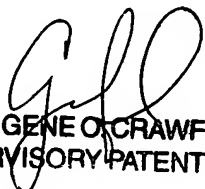
***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is (571) 272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

06/22/2006

  
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SUPERVISORY PATENT EXAMINER